

## ABSTRACT

Replaceable outer support structure 38 for a particulate material bed 70 in a radial flow system comprises a plurality of hollow conduits 50, 250, 260, at least some of which have a generally trapezoidal cross-section. The conduits are arranged  
5 in a ring around the inside wall surface 39 of the vessel 42 and have flat or slightly concave inner wall surfaces 52 formed of segments of vertically extending screen members which have slots or openings 86 which provide uniform flow through the uniform thickness particulate bed which they help define. The side walls 54, 56 of the conduits extend generally radially outwardly to engage the inner surface 39 of the  
10 outside wall 40 of the vessel and at least those of them which have a trapezoidal cross-section have their side walls formed at an included angle  $\alpha$  which is less than if they extended radially relative to the axis of the vessel. An embodiment having alternating generally trapezoidal 250 and generally rectangular cross-sections 260 for the conduit members maximizes the total internal flow area of the ring of conduits as  
15 compared to an embodiment in which all of the conduit members have a trapezoidal shape, while still allowing the inward movement of individual conduit members during installation or replacement operations.

J-9901-US